

REMARKS

The amendments requested above are believed to overcome the objections stated in the first two paragraphs of Section 2 of the Official action. The objection stated in the third paragraph is respectfully traversed. The applicant knows of no prohibition against even a verbatim recitation of a claim in the specification, much less a prohibition against a narrative description of the invention which uses claim language.

The foregoing amendments are also believed to avoid the claim objections stated in Section 3 of the Official action and the claim rejections stated in Section 5.

The rejection (Section 7 of the Official action), 35 U.S.C. 103(a), of claims as unpatentable over "Stoler" (U.S. patent No. 1,558,126, October 20, 1925) in view of "Yamada" (U.S. patent 3,894,777), insofar as it applies to claims 1 and 4-9, is respectfully traversed. The Official action, in construing Stoler and Yamada, makes the statements quoted in the table on the following page of this response. (Stoler Figs. 1 and 2 are reproduced below, because they are believed to help in evaluating the assertions which are quoted in the table).

<p>"Stoler shows a spoke 1 for a tensioned spoke wheel, wherein the spoke 1 includes a shaft having first and second ends. A first segment (3-4) of the shaft is adjacent to the first end, and a second segment 2 of the shaft is adjacent to the first segment (3-4), and also extends towards the second end of the shaft. The first segment includes a threaded portion 4 and an unthreaded portion 3 adjacent to the threaded portion, and located between the threaded portion 4 and the second end of the shaft.</p>	
<p>"The cross section of the spoke 1 is generally circular. The spoke 1 further includes a third segment 5, located between the second segment 2 and the second end of the spoke. The third segment 5 has a cross-sectional area greater than that of the second segment 2.</p>	
<p style="text-align: center;">* * *</p>	
<p>"Both the first (3-4) and second 2 segments of the spoke shaft have given cross-sectional areas, wherein the cross-sectional area of the second segment 2 is less than the cross-sectional area of the first segment (3-4) of the spoke shaft.</p>	
<p>"The cross-section of the second segment 2 of the spoke 1 is sufficiently small that it is subject to rotation when tension is applied by a spoke nipple of nut attached to the threaded portion 4 of the spoke 1.</p>	<p>The references are both silent about rotation being caused by tension applied by a spoke nipple</p>
<p>"Stoler does not show the unthreaded portion of the spokes being shaped to form at least two, opposed torque-transmitting surfaces. Yamada teaches the use of a spoke 13a having the surface 14a of a part of the unthreaded end of a first segment shaped to form at least two opposed, flat, torque-transmitting surfaces. The opposed flat surfaces 15 of the first segment of the spoke shaft is formed by pressing the surface between a pair of parallel tool surfaces to permanently deform the unthreaded portion into the two torque transmitting surfaces.</p>	<p>The reference does not disclose that the surface 14a has opposed flat torque transmitting surfaces, calling them, instead, reflective flattened portions for permitting recognition from afar under illumination</p>
<p>"Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the unthreaded portion of the first segment of the spokes of Stoler with a pair of opposed torque-transmitting surfaces as taught by Yamada for the purpose of providing an easily located surface of attaching a tool, thus simplifying the process of tensioning the spokes when attached to a wheel.</p>	<p>Therefore, it would have been obvious from Yamada to provide some part of the spokes of Stoler with reflective flattened portions for permitting recognition from afar</p>
<p>"Stoler as modified by Yamada shows a spoke where the unthreaded portion 3, which includes the two, opposed torque-transmitting surfaces 15, has a sufficiently large cross-section and the shaped portion 15 is sufficiently close to the threaded portion 4 that preventing rotation of the shaped portion 15 of the first segment (3-4) prevents rotation of the spoke with a spoke nipple."</p>	<p>Stoler in view of Yamada does not suggest a spoke which includes two torque transmitting surfaces which prevent rotation of the spoke with a spoke nipple.</p>

Section 103(a) of the statute, which is reproduced in the Official action, says that "A patent may not be obtained * * * if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

The term "subject matter as a whole" which Section 103(a) requires to have been obvious "*at the time the invention was made*" has been held to mean both the actual structure and the result achieved. In the present case, the actual structure (claim 1) is a

"spoke comprising:

a shaft having first and second ends, a first segment of said shaft adjacent the first end having a given cross-sectional area, and a second segment of said shaft adjacent, and extending toward the second end from, said first shaft segment having a cross-sectional area less than the given cross-sectional area of the first segment, said first segment having a threaded portion and an unthreaded portion which is adjacent to said threaded portion and is between said threaded portion and said second end, wherein the cross sectional area of the spoke is sufficiently small that when the spoke is installed in a wheel under tension applied by a nipple or nut into which the spoke is threaded, said second segment is subject to rotation therewith when the nipple or nut is rotated to increase the spoke tension, and wherein the surface of a part of said unthreaded portion of said first segment is shaped to form at least two opposed, flat, torque transmitting surfaces.

As is pointed out in the foregoing table, both of the cited references are silent about rotation being caused by tension applied by a spoke nipple. The instant application, on the other hand, not only discloses, but, also, solves the problem of such rotation, stating (paragraph 0011 of the application as published):

"When it is desired to adjust the tension on such a spoke, the flats are easily engaged by a tool, which can be held to prevent the end of the spoke from rotating when the nipple or nut is turned, thereby facilitating the desired change in spoke tension."

Since neither of the cited references either discloses or suggests the problem, one in view of the other can not make the result disclosed by the instant application obvious; therefore, the "claimed subject matter as a whole" can not be obvious from either Stoler or Yamada in view of the other, and the rejection on the two is an improper "hindsight" rejection where the disclosure of the application being examined is attributed to the prior art. In the absence of such disclosure,

the foregoing quotation amounts to an improper hindsight assertion of obviousness which is supported only by the disclosure and claims of the subject application. Such practice has been criticized by the Federal Circuit; see, for example, *In re Kotzab*, 208 F. 3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000 where the Court said:

“A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then accepted wisdom in the field. See (*In re*) Dembiczak, 175 F. 3d 994, 999, 50 USPQ 1614, 1617 (Fed. Cir. 1999). Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one ‘to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher.’ *Id.* (quoting *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F 2d 1540, 1553, 220 USPQ 303, 313 Fed. Cir. 1983)).”

The foregoing discussion is believed to demonstrate that the several grounds for rejection and objection have been avoided or should be withdrawn, and that the subject application is in condition for allowance.

Favorable action is respectfully solicited.

Respectfully submitted,



John C. Purdue
Registration No. 16,555

JCPurdue
Purdue Law Offices
2735 North Holland-Sylvania Road
Toledo, Ohio 43615-1844
Telephone: Voice, 419/531-0599
Facsimile 419/531-0362